SUPREME COURT OF THE UNITED STATES

Nos. 463 AND 462.—OCTOBER TERM, 1966.

Stewart L. Udall, Secretary of the Interior, Petitioner, 463 *v.* Federal Power Comm'n et al. Washington Public Power Supply System, Petitioner, 462 *v.* Federal Power Comm'n et al.	On Writs of Certiorari to the United States Court of Appeals for the District of Columbia Circuit.

[June 5, 1967.]

MR. JUSTICE DOUGLAS delivered the opinion of the Court.

The Federal Power Commission has awarded Pacific Northwest Power Company (a joint venture of four private power companies) a license to construct a hydroelectric power project at High Mountain Sheep, a site on the Snake River, a mile upstream from its confluence with the Salmon. 31 F. P. C. 247, 1051. The Court of Appeals approved the action, 358 F. 2d 840; and we granted the petitions for certiorari. 384 U. S. 927.

The primary question in the cases involves an interpretation of § 7 (b) of the Federal Power Act of 1920, 41 Stat. 1063, 16 U. S. C. § 800 (b) which provides:

> "Whenever, in the judgment of the Commission, the development of any water resources for public purposes should be undertaken by the United States itself, the Commission shall not approve any application for any project affecting such development, but shall cause to be made such examinations, surveys, reports, plans, and estimates of the cost of the

proposed development as it may find necessary and shall submit its findings to Congress with such recommendations as it may find appropriate concerning such development."

The question turns on whether § 7 (b) requires a showing that licensing to a private, state, or municipal agency [1] is a satisfactory alternative to federal development. We put the question that way because the present record is largely silent on the relative merits of federal and nonfederal development. What transpired is as follows:

Both Pacific Northwest and Washington Public Power Supply System, allegedly a "municipality" under § 4 (e)

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[1] Section 4 of the Act provides in part:

"The Commission is authorized and empowered—

"(a) To make investigations and to collect and record data concerning the utilization of the water resources of any region to be developed, the water-power industry and its relation to other industries and to interstate or foreign commerce, and concerning the location, capacity, development costs, and relation to markets of power sites, and whether the power from Government dams can be advantageously used by the United States for its public purposes, and what is a fair value of such power, to the extent the commission may deem necessary or useful for the purposes of this chapter.

. . . . . .

"(e) To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, or upon any part of the public lands and reservations of the United States (including the Territories), or for the purpose of utilizing the surplus water or water power from any Government dam, except as herein provided: . . . ."

and under § 7 (a) of the Act,[2] filed applications for licenses on mutually exclusive sites; and they were consolidated for hearing. Before the hearing the Commission solicited the views of the Secretary of the Interior. The Secretary urged postponement of the licensing of either project while means of protecting the salmon and other fisheries were studied. That was on March 15, 1961. But the hearings went forward and on June 28, 1962, after the record before the Examiner was closed, but before he rendered his decision, the Secretary wrote the Commission urging it to recommend to Congress the consideration of federal construction of High Mountain Sheep. The Commission reopened the record to allow the Secretary's letter to be incorporated and invited the parties to file supplemental briefs in response to it. On October 8, 1962, the Examiner rendered his decision, recommending that Pacific Northwest receive the license. He disposed of the issue of federal development on that ground that there "is no evidence in this record that Federal development will provide greater flood control, power benefits, fish passage, navigation or recreation; and there is substantial evidence to the contrary."

The Secretary asked for leave to intervene and to file exceptions to the Examiner's decision.[3] The Commission

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[2] See note 1, *supra*, for § 4 (e). Section 7 (a) of the Act provides:

"In issuing preliminary permits hereunder or licenses where no preliminary permit has been issued and in issuing licenses to new licensees under section 15 hereof the Commission shall give preference to applications therefor by States and municipalities, provided the plans for the same are deemed by the Commission equally well adapted, or shall within a reasonable time to be fixed by the Commission be made equally well adapted, to conserve and utilize in the public interest the water resources of the region. . . ."

[3] The Secretary argued that federal development of High Mountain Sheep is necessary because (1) hydraulic and electrical coordination with other Columbia River Basin projects, particularly the federal dams already or to be constructed on the downstream sites,

allowed intervention "limited to filing of exceptions to the Presiding Examiner's decision and participation in such oral argument as might subsequently be ordered."

The Secretary filed exceptions and participated in oral argument. The Commission on February 5, 1965, affirmed the Examiner saying that it agreed with him "that the record supports no reason why federal development should be superior," observing that "[w]hile we have extensive material before us on the position of the Secretary of the Interior, there is no evidence in the record presented by him to support his position." 31 F. P. C., at 275.

It went on to say that it found "nothing in this record to indicate" that the public purposes of the dam (flood control, etc.) would not be served as adequately by Pacific Northwest as they would under federal development. And it added, "We agree that the Secretary (or any single operator) normally would have a superior ability to coordinate the operations of HMS with the other affected projects on the river. But there is no evidence upon which we can determine the scope or the seriousness of this matter in the context of a river system which already has a number of different project operators

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could be more effectively achieved if High Mountain Sheep is a part of the federal system; (2) federal development will assure maximum use of the federal northwest transmission grid, thus contributing to maximum repayment of the federal investment in transmission, which will, in turn, redound to the benefit of the power consumers; (3) federal development would provide greater flexibility and protection in the management of fish resources; (4) flood control could better be effected by flexible federal operation; (5) storage releases for navigation requirements could be made under federal ownership and supervision with less effect on power supply; (6) federal development can better provide recreational facilities for an expanding population. The Secretary noted, however, that immediate construction of the project would produce an excess of power in the Pacific Northwest which would cause large losses to Bonneville Power Administration and severe harm to the region's economy.

and an existing coordination system, *i. e.*, the Northwest Power Pool." *Id.*, at 276–277.

The Secretary petitioned for a rehearing, asking that the record be opened to permit him to supply the evidentiary deficiencies. A rehearing, but not a reopening of the record, was granted; and the Commission shortly reaffirmed its original decision with modifications not material here.

The issue of federal development has never been explored in this record. The applicants introduced no evidence addressed to that question; and the Commission denied the Secretary an opportunity to do so though his application was timely. The issue was of course briefed and argued; yet no factual inquiry was undertaken. Section 7 (b) says "Whenever, in the judgment of the Commission, the development of any water resources for public purposes should be undertaken by the United States itself," the Commission shall not approve other applications. Yet the Commission by its rulings on the applications of the Secretary to intervene and to reopen precluded it from having the informed judgment that § 7 (b) commands.

We indicate no judgment on the merits. We do know that on the Snake-Columbia waterway between High Mountain Sheep and the ocean, eight hydroelectric dams have been built and another authorized. These are federal projects; and if another dam is to be built, the question whether it should be under federal auspices looms large. Timed releases of stored water at High Mountain Sheep may affect navigability; they may affect hydroelectric production of the downstream dams when the river level is too low for the generators to be operated at maximum production; they may affect irrigation; and they may protect salmon runs when the water downstream is too hot or insufficiently oxygenated. Federal versus private or municipal control may con-

ceivably make a vast difference in the functioning of the vast river complex.[4]

Beyond that is the question whether any dam should be constructed.

As to this the Secretary in his letter to the Commission dated November 21, 1960, in pleading for a deferment of consideration of applications stated:

> "In carrying out this Department's responsibility for the protection and conservation of the vital Northwest anadromous fishery resources and in light of the fact that the power to be available as a result

[4] Various federal agencies have been long engaged in the development of a comprehensive plan for the improvement of the Middle Snake. As early as 1948 the Secretary of Interior submitted a comprehensive plan for the development of water resources of the Columbia River Basin. In 1950 the Corps of Engineers submitted a comprehensive plan for the development of the Columbia River Basin. H. R. Doc. No. 531, 81st Cong., 2d Sess., Vol. 1, pp. 1–3, Vol. 2, pp. 1429, 1482, Vol. 6, p. 2509. The plan recommended, in part, federal construction of nine run-of-the-river dams downstream from High Mountain Sheep and a regulating reservoir for the nine dams at Hells Canyon on the upper Snake. The nine dams were all authorized by Congress and have been or, in one case, will be constructed as federal projects in accordance with the plan. Hells Canyon was later licensed for private development, and, according to the Secretary of Interior, without adequate regulating facilities. The Corps of Engineers and the Secretary of Interior then recommended that the federal regulating dam be built, after further study, at High Mountain Sheep—the last suitable site. H. R. Doc. No. 403, 87th Cong., 2d Sess., Vol. 1, pp. iv, viii–ix, 260. Though it is not contended that congressional authorization of the nine federal dams downstream may have pre-empted the Commission's authority to license High Mountain Sheep for private development (cf. *Chapman* v. *Federal Power Comm'n*, 345 U. S. 153), it is argued that Congress appropriated vast sums for federal development of the Columbia River Basin's hydroelectric resources in accordance with an overall plan that contemplated that the key structure in the system would be federally operated and that the downstream dams can be efficiently operated only if the High Mountain Sheep is federally operated.

of ratification of the proposed Columbia River treaty with Canada will provide needed time which can be devoted to further efforts to resolve the fishery problems presently posed by these applications, we believe that it is unnecessary at this time and for some years to come to undertake any project in this area.

"You may be assured that the Fish and Wildlife Service of this Department will continue, with renewed emphasis, the engineering and research studies that must be done before we can be assured that the passage of anadromous fish can be provided for at these proposed projects."

Since the cases must be remanded to the Commission, it is appropriate to refer to that aspect of the case.

Section 10 (a) of the Act [5] provides that "the project adopted" shall be such "as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway . . . and for other beneficial public uses, including *recreational* purposes." (Emphasis added.)

The purpose of protecting "recreational purposes" means more than that the reservoir created by the dam will be the best one possible or practical from a recreational viewpoint. There are already eight lower dams on

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[5] "All licenses issued under this Part shall be on the following conditions:

"(a) That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, and for other beneficial public uses, including recreational purposes; and if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval."

this Columbia River system and a ninth one authorized; and if the Secretary is right in fearing that this additional dam would destroy the waterway as spawning grounds for anadromous fish (salmon and steelhead) or seriously impair that function, the project is put in an entirely different light. The importance of salmon and steelheads in our outdoor life as well as in commerce [6] is so important that there certainly comes a time when their destruction might necessitate a halt in so-called "improvement" or "development" of waterways. The destruction of anadromous fish in our western waters is so notorious [7] that we cannot believe that Congress through the present Act authorized their ultimate demise.

We need not speculate as to what the 1920 purpose may have been. For the 1965 Anadromous Fish Act, 79 Stat. 1125, is on this aspect of the present case in *pari materia* with the 1920 Act. We know from § 1 of the 1965 Act that Congress is greatly concerned with the depletion of these fish resources "from water resources developments and other causes." See also H. R. Rep. No. 1007, pp. 2–5; S. Rep. No. 860; Anadromous Fish, Hearings before the Subcommittee on Fisheries and Wildlife of the House Committee on Merchant Marine

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[6] In 1966 the value of the Pacific salmon catch was over $67,000,000 and in 1965 over $65,000,000. United States Department of Interior, Fish & Wildlife Service, Fisheries of the United States, 1966, p. 2. As noted by the Commission, "the Columbia River is the greatest producer of Pacific salmon and steelhead trout in the United States." "Columbia River salmon have been important in the development of the Pacific Northwest for almost a century." "The commercial catch of Columbia River salmon is estimated to be worth $12,000,000 annually and the sport fishing attributable to the Salmon River alone . . . may be worth as much as $8 million a year." 31 F. P. C., at 259.

[7] See H. R. Rep. No. 1007, pp. 2–5; S. Rep. No. 860; Anadromous Fish, Hearings before the Subcommittee on Fisheries and Wildlife of the House Committee on Merchant Marine and Fisheries, 89th Cong., 2d Sess., 11.

and Fisheries, 89th Cong., 1st Sess., 133; Anadromous Fish, Hearings before the Subcommittee on Fisheries and Wildlife of the House Committee on Merchant Marine and Fisheries, 88th Cong., 2d Sess., 11. The rapid depletion of the Nation's anadromous fish resources led Congress to enact the Anadromous Fish Act which authorizes federal-state cooperation for the conservation, development, and enhancement of the Nation's anadromous fish resources and to prevent their depletion from various causes including water resources development. In passing the Act, Congress was well aware that the responsibility for the destruction of the anadromous fish population partially lies with the "improvement" and "development" of water resources. It directed the Secretary of the Interior "to conduct such studies and make such recommendations as the Secretary determines to be appropriate regarding the development and improvement of any stream or other body of water for the conservation and enhancement of anadromous fishery resources." § 2.

Mr. Justice Holmes once wrote that "A river is more than an amenity, it is a treasure." [8] *New Jersey* v. *New*

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[8] Recently, Congress has expressed a renewed interest in preserving our Nation's rivers in their wild, unexploited state. On January 18, 1966, the Senate passed the National Wild Rivers bill (S. 1446, 89th Cong., 2d Sess., 112 Cong. Rec. (daily ed. 500), and it was pending before the House of Representatives when the Eighty-Ninth Congress adjourned. The bill has already been reintroduced in the Ninetieth Congress. S. 119, 90th Cong., 1st Sess.). If enacted, it would preserve the Salmon River, a tributary of the Snake just below High Mountain Sheep, in its natural state. The bill states:

"The Congress finds that some of the free-flowing rivers of the United States possess unique water conservation, scenic, fish, wildlife, and outdoor recreation values of present and potential benefit to the American people. The Congress also finds that our established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water

York, 283 U. S. 336, 342. That dictum is relevant here for the Commission under § 10 of the 1920 Act must take into consideration not only hydroelectric power, navigation, and flood control, but also the "recreational purposes" served by the river. And as we have noted, the Secretary of the Interior has a mandate under the 1965 Act to study recommendations concerning water development programs for the purpose of the conservation of anadromous fish. Thus apart from § 7 (b) of the 1920 Act, the Secretary by reason of § 2 of the 1965 Act comes to the Federal Power Commission with a special mandate from Congress, a mandate that gives him special standing to appear, to intervene, to introduce evidence on the proposed river development program, and to participate fully in the administrative proceedings.

Fishing is obviously one recreational use of the river and it also has vast commercial implications as the legislative history of the 1965 Act indicates. The Commission, to be sure, did not wholly neglect this phase of the problem. In its report it adverted to the anadromous fish problem, stating that it was "highly controversial" and was not "clearly resolved on record." The reservoir is "the most important hazard" both to upstream migrants and downstream migrants. Upstream migrants can be handled quite effectively by fish ladders. But those traveling downstream must go through the turbines; and their mortality is high. Moreover, Chinook salmon are "basically river fish and do not appear to adapt to the different conditions presented by a reservoir." 31 F. P. C., at 260. The ecology of a river is different from the ecology of a reservoir built behind a dam. What the full

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quality of such rivers and to fulfill other vital national conservation purposes. It is the policy of Congress to preserve, develop, reclaim, and make accessible for the benefit of all the American people selected parts of the Nation's diminishing resource of free-flowing rivers."

effect on salmon will be is not known. But we get a glimmering from the Commission's report. As to this the Commission said:

> "A reservoir exhibits a peculiar thermal structure. During the winter it is homogeneous with regard to temperature, but as the season advances a horizontal stratification results with the colder water sinking lower. Since Salmon River water is colder than Snake River water, it is possible, if not probable, that in the Nez Perce reservoir the water from the two rivers would be found in separate layers and drawn off at different times. Presumably the upstream migrants reaching fish ladders might at one time be presented with water from one river and at another time water from the other river. If water quality is important in attracting the upstream migrants to their proper streams, as many experts believe, this stratification would be a source of confusion and delay. Also a source of confusion to the upstream migrants would be the predicted tendency shown by the record for water from the Salmon River arm of the Nez Perce reservoir to flow up the Snake River arm and vice versa. Again the fish are faced with a complicated problem in finding their way.
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> "The velocity of flow in the Nez Perce of HMS reservoir would be very low compared with the free flowing stream or even compared to the flow in the reservoir of the McNary dam on the Columbia. Since the upstream migrants follow water flow and downstream migrants are carried by current, such low velocities offer a further obstacle to the passage of anadromous fish.
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> "The record also shows that during the summer months the oxygen content of the water in the reservoir at the lower levels will fall to amounts

> which are dangerously insufficient for salmon. The decrease in oxygen content appears to be due to decomposed sinking dead organisms (plankton) from the upper layers of water. The record indicates that salmon require an oxygen content of approximately five parts per million, yet the oxygen content at the 250–350 foot level would fall in August to less than three parts per million." 31 F. T. C., at 261.

The Commission further noted that some salmon remain in the reservoir due to "loss of water velocity or accumulation of dissolved salts" and are lost "as perpetrators of the species." But it did not have statistics showing the loss of the downstream migrants as a result of passing through the turbines. We are told from studies of the Bureau of Comercial Fisheries that the greatest downstream migration occurs at night when turbine loads are lower.[9] We are told from these studies that the effect of dams on the downstream migration of salmon and steelhead may be disastrous.[10] It is reported that

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[9] Long, Day-night Occurrence and Vertical Distribution of Juvenile Anadromous Fish in Turbine Intakes (U. S. Bureau of Commercial Fisheries, 12, 13, 16).

[10] From the data, it would appear that successful passage of juvenile salmonids is highly unlikely through the impoundments that will be created in the Middle Snake River Basin. This implies that if natural runs are to be passed in this area, downstream migrants must be collected in the head of a reservoir or in streams above the reservoir and transported below.

"Passage of juveniles has not been successful. Escapement from the reservoir varied from year to year, ranging from approximately 10 to 55 percent of the calculated recruitment. The best passage occurred in 1964 in conjunction with a substantial drawdown, high inflows, and a slow spring fill-up that resulted in large discharges (up to 50,000 c. f. s.) during smolt migration. Progeny of spring-run chinook stocks appear to fare better than those from the fall run, and limited data on steelhead suggest that this species may be

unless practical alternatives are designed, such as the collection of juvenile fish above the dams and their transportation below it, we may witness an inquest on a great industry and a great "recreational" asset of the Nation.

In his letter of November 21, 1960, the Secretary of Interior noted the adverse effects this present project would have on anadromous fish, that the facilities proposed to protect the fish were "unproved," and that "conservation in the fullest sense calls for deferral while full advantage is taken of the opportunity presented by Canadian storage and Libby." The Commission admitted that "high dams and reservoirs present major obstacles to anadromous fish, that it was not optimistic "as to the efficacy of fish passage facilities on high dams," and concluded with the forlorn statement that, "We can hope for the best and we will continue to insist that any licensee building a high dam at a site which presumably involves major fish runs do everything possible within the limits of reasonable expense to preserve the fish runs. But as of now we understandably must assume that the best efforts will be only partly successful and that real damage may and probably will be done to any such fish runs." 31 F. P. C., at 262.

Equally relevant is the effect of the project on wildlife. In his letter of November 21, 1960, the Secretary of Interior noted that the areas of the proposed projects were important wildlife sanctuaries, inhabited by elk, deer, partridge, a variety of small game and used by ducks, geese, and mourning doves during migration. He concluded that "adverse effects of the proposed project [HMS] on wildlife could [not] be mitigated." Letter

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having even greater difficulty than salmon in passing through the reservoir." Collins & Elling, Vol. 1, Fish Passage Research Program-Review of Progress 1964, Summary of Progress on Fish-Passage Research 1964 (U. S. Bureau of Commercial Fisheries 1964), 2.

of November 21, 1960 (J. A. 133), as corrected by letter of December 7, 1960 (J. A. 137). The Secretary concluded that "Several thousand acres of mule deer range would be inundated and there would be a moderate reduction in the number of deer as a result of loss of range. There would be losses of upland game, fur animals, and waterfowl. Reservoir margins would be barren and unattractive to all wildlife groups. Waterfowl use of the reservoirs would be insignificant. There does not appear to be any feasible means of mitigating wildlife losses."

The Fish and Wildlife Coordination Act, 48 Stat. 401, as amended, 16 U. S. C. § 661 *et seq.*, establishes a national policy of "recognizing the vital contribution of our wildlife resources to the Nation, the increasing public interest and significance thereof due to expansion of our national economy and other factors, and to provide that wildlife conservation shall receive equal consideration and be coordinated with other features of water-resource development programs. . . ." Section 662 of 16 U. S. C. provides that an agency evaluating a license under which "the waters of any stream or other body of water [is] proposed . . . to be impounded" "shall first consult with the United States Fish and Wildlife Service, Department of Interior . . . with a view to the conservation of wildlife resources by preventing loss of and damage to such resources. . . ." Certainly the wildlife conservation aspect of the project must be explored and evaluated.

These factors of the anadromous fish and of other wildlife may indeed be all-important in light of the alternate sources of energy that are emerging.

In his letter of November 21, 1960, the Secretary noted that, due to increased power resources, the projects could be safely deferred. "These projects could extend the time still further, as could also be the case in the event nuclear power materialized at Hanford in the 1960–1970 period. This possibility, as you know, has been under

intensive study by your staff for the Atomic Energy Commission. . . ."

The urgency of the hydroelectric power at High Mountain Sheep was somewhat discounted by the Secretary in his petition to intervene:

> "Power needs of the Northwest do not require immediate construction of the High Mountain Sheep Project. One of the reasons which leads the Secretary to intervene now is that the Examiner's decision of October 10, 1962, was handed down just prior to Congressional action which substantially altered the federal power resource program of the Pacific Northwest. This Congressional action requires a complete re-examination and re-appraisement of the conclusions stated as a basis for the Examiner's findings.
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> "The actions of Congress in the session just concluded has made provisions for new federal power producing facilities. Brucas Eddy Dam, with a peak capacity of 345,000 KW, was authorized and received appropriation for the start of construction in Fiscal Year 1963. Asotin Dam, with a peak capacity of 331,000 KW, was also authorized. Little Goose Dam, with a peak capacity of 466,000 KW, which had previously been authorized, received an appropriation for the start of construction in 1963. Most important of all, generation at the Hanford Thermal Project, which would add approximately 905,000 kilowatts to the Northwest's power resources was also approved.
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> "There are other possibilities regarding new power sources which have reasonable prospects of realization. They include Canadian storage, realization of which is dependent upon consummation of the Canadian Treaty. Additional firm capacity which would accrue to the United States from such storage would

be 1,300,000 kilowatts. In addition, the Treaty would allow the construction of Libby Dam which would initially have a capacity of 397,000 kilowatts. There is also the possibility of the availability in the United States of power from the Canadian entitlement under the Treaty of 1,300,000 kilowatts. Plans are also under way for construction of a 500,000 kilowatt steam plant by Kittitas PUD and Grant County PUD. A number of different agencies have proposed the construction of the Pacific Northwest-Southwest transmission intertie which, by electrical integration, would add an additional 400,000 kilowatts of firm capacity for the Pacific Northwest.

"The total power resource of the area is therefore predictably in excess of all foreseeable requirements thereon for the period through 1968–1969 and sufficient to meet all requirements until at least 1972–1973 and potentially for years beyond that date. The addition of High Mountain Sheep Dam will not be needed until at least 1972–1973, and construction should be planned to bring it into production at that time or later as the developing power resource picture indicates.

"New generating facilities, which are not correlated to the power resources and power demands within the area of the marketing responsibility of BPA necessarily result in surpluses of power on the federal system which is the basic wholesale supplier of power in the area and thereby result in financial deficits on the federal marketing system. In view of the role of the Federal system as the base supplier for the area, this threatens the stability of the area's permanent resources and hence of the area's economy. The High Mountain Sheep project at this time would have such an effect."

We are also told that hydroelectric power promises to occupy a relatively small place in the world's supply of energy. It is estimated that when the world's population reaches 7,000,000,000—as it will in a few decades—the total energy requirements will be 70,000,000,000 metric tons of coal or equivalent annually and that it will be supplied as follows: [11]

Source	*Equivalent metric tons of coal (billions)*
Solar energy (for two-thirds of space heating)	15.6
Hydroelectricity	4.2
Wood for lumber and paper	2.7
Wood for conversion to liquid fuels and chemicals	2.3
Liquid fuels and "petro" chemicals produced via nuclear energy	10.0
Nuclear electricity	35.2
Total	70.0

Brown, The Next Hundred Years (1957), p. 113.

By 1980 nuclear energy "should represent a significant proportion of world power production." *Id.*, at 109. By the end of the century "nuclear energy may account for about one-third of our total energy consumption." *Ibid.* "By the middle of the next century it seems likely that most of our energy needs will be satisfied by nuclear energy." *Id.*, at 110.

Some of these time schedules are within the period of the 50-year licenses granted by the Commission.

Nuclear energy is coming to the Columbia River basin by 1975. For plans are afoot to build a plant on the Trogan site, 14 miles north of St. Helens. This one plant will have a capacity of 1,000,000 Kws. This emphasizes the relevancy of the Secretary's reference to production and distribution of nuclear energy at the Hanford Thermal Project which he called "most impor-

[*Footnote 11 on page 18*]

[11] Projections of energy sources for the coming years have been summarized in Energy R & D and National Progress, prepared for the Interdepartmental Energy Study by the Energy Study Group, at 22. The following table is taken from that source.

Percent of total energy requirements supplied by hydro, nuclear, and fossil fuels

Source and publication date	1975			1980			2000		
	Hydro	Nuclear	Fossil	Hydro	Nuclear	Fossil	Hydro	Nuclear	Fossil
Paley (1952)	4.6	.....	95.4	.....	.....	.....	.....	.....	.....
Schurr and Netschert (1960)	3.2	(1)	96.8	.....	.....	.....	.....	.....	.....
Interior-McKinney (1956)[2]	2.7	2.7	94.6	.....	.....	.....	.....	.....	.....
Teitelbaum (1958)	.....	.....	.....	3.0	8.7	88.3	.....	.....	.....
Lamb (1959)	.....	.....	.....	2.6	4.0	93.4	.....	.....	.....
Texas Eastern Transmission Corp. (1961)[3]	.....	.....	.....	2.4	1.4	96.2	.....	.....	.....
Lasky Study Group (1962)[4]	.....	.....	.....	2.5	2.5	95.0	.....	.....	.....
Sporn (1959)	2.9	1.8	95.3	.....	.....	.....	2.3	21.3	76.4
Searl (1960)[5]	.....	.....	.....	3.0	97.0		1.5	98.5	
Atomic Energy Commission (1962)[6]	.....	.....	.....	3.0	3.0	94.0	1.7	23.3	75.0
Landsberg, Fischman and Fisher (1963)	.....	.....	.....	3.4	4.7	91.9	2.1	14.0	83.9

[1] Estimates were made in terms of conventional sources, but text indicates that 2.5 to 3.75 percent of the total might come from atomic fuels.

[2] Although this forecast goes to 1980, the values for that year are shown only in graphic form. Therefore, the 1975 values which are given in a table are used here.

[3] Calculations based on figures after adjusting hydropower to fuel input basis.

[4] Concerning nuclear power, the report adds "* * * but there should be no surprise if nuclear power should insinuate itself into the energy economy of the country at a much faster rate."

[5] Nuclear power included with coal.

[6] Nuclear use is for electricity generation.

NOTE:

a. Actuals for 1960 according to the U.S. Bureau of Mines: Hydropower, 3.9 percent; nuclear, 0.1 percent; and fossil fuels, 96.0 percent.

b. Hydropower is on a fuel equivalent basis.

c. Week's estimates show a breakdown by fuel types but are presented in a cumulative form which makes estimation of annual values difficult.

tant of all" and which Congress has authorized. 76 Stat. 604.

Implicit in the reasoning of the Commission and the Examiners is the assumption that this project must be built and that it must be built now. In the view of the Commission, one of the factors militating against federal development was that "the Department of Interior . . . frankly admitted it [had] no present intention of seeking authorization to commence construction or planning to construct an HMS project." 31 F. P. C., at 277. The Examiner's report stated that "(a) comprehensive plan provides for *prompt* and optimum multipurpose development of the water resources" and that the relative merits of the proposed projects "turn on a comparison of the costs and benefits of component developments and on which project is best adapted to attain optimum development *at the earliest time* with the smallest sacrifice of natural values." J. A. 394 (emphasis added). But neither the Examiner nor the Commission specifically found that deferral of the project would not be in the public interest or that immediate development would be more in the public interest than construction at some future time or no construction at all. Section 4 (e) of the Act, the section authorizing the Commission to grant licenses, provides in part:

> "Whenever the contemplated improvement is, in the judgment of the commission, desirable and justified in the public interest for the purpose of improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, a finding to that effect shall be made by the commission and shall become part of the records of the commission."

And § 10 (a) of the Act provides that:

> "the project adopted . . . shall be such as in the judgment of the Commission will be best adapted

> to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes. . . ."

The issues of whether deferral of construction would be more in the public interest than immediate construction and whether preservation of the reaches of the river affected would be more desirable and in the public interest than the proposed development are largely unexplored in this record. We cannot assume that the Act commands the immediate construction of as many projects as possible. The Commission did discuss the Secretary of Interior's claim that, due to alternate power sources, the region will not need the power supplied by the High Mountain Sheep dam for some time. And it concluded that "[o]f more significance . . . than the regional power situation are the load and resources of the [Pacific Northwest Power Company] companies themselves," which could use the power in the near future. 31 F. P. C., at 272. It added, "In summary as to the need for the power, we conclude that the PNPC sponsoring companies will be able to use HMS power as soon as it is available." *Ibid.* On rehearing, the Commission stated that "HMS power will be needed on a regional basis by 1970–1971. . . ." 31 F. P. C. 1051, 1052.

The question whether the proponents of a project "will be able to use" the power supplied is relevant to the issue of the public interest. So too is the regional need for the additional power. But the inquiry should not stop there. A license under the Act empowers the licensee to construct, for its own use and benefit, hydroelectric projects utilizing the flow of navigable waters and thus, in effect, to appropriate water resources from the public domain. The grant of authority to the Commis-

sion to alienate federal water resources does not, of course, turn simply on whether the project will be beneficial to the licensee. Nor is the test solely whether the region will be able to use the additional power. The test is whether the project will be in the public interest. And that determination can be made only after an exploration of all issues relevant to the "public interest," including future power demand and supply, alternate sources of power, the public interest in preserving reaches of wild rivers and wilderness areas, the preservation of anadromous fish for commercial and recreational purposes, and the protection of wildlife.

The need to destroy the river as a waterway, the desirability of its demise, the choices available to satisfy future demands for energy—these are all relevant to a decision under § 7 and § 10 but they were largely untouched by the Commission.

On our remand there should be an exploration of these neglected phases of the case, as well as the other points raised by the Secretary.

We express no opinion on the merits. It is not our task to determine whether any dam at all should be built or whether if one is authorized it should be private or public. If the ultimate ruling under § 7 (b) is that the decision concerning the High Mountain Sheep site should be made by the Congress, the factors we have mentioned will be among the many considerations it doubtless will appraise. If the ultimate decision under § 7 (b) is the other way, the Commission will not have discharged its functions under the Act unless it makes an informed judgment on these phases of the case.

This leaves us with the questions presented by Washington Public Power Supply System in No. 462. The main points raised by it are that it is a "municipality" within the meaning of § 7 (a) and therefore entitled to a preference over this power site, that the Commission

violated that statutory preference, and that while Pacific Northwest had a prior preliminary permit granted under § 5 of the Act, the Commision unlawfully expanded it to include this site. We express no opinion on the merits of these contentions because they may or may not survive a remand. If in time the project, if any, becomes a federal one, Washington Public Power Supply System would be excluded along with Pacific Northwest, and the points now raised by it would become moot. If in time a new license is issued to Pacific Northwest, the points now raised by Washington Public Power Supply System can be preserved. Accordingly in No. 462 we vacate the judgment and remand the case to the Court of Appeals with instructions to remand to the Commission. In No. 463 we reverse the judgment and remand the case to the Court of Appeals with instructions to remand to the Commission. Each remand is for further proceedings consistent with this opinion.

It is so ordered.

MR. JUSTICE FORTAS took no part in the consideration or decision of these cases.

SUPREME COURT OF THE UNITED STATES

Nos. 463 AND 462.—OCTOBER TERM, 1966.

Stewart L. Udall, Secretary of the Interior, Petitioner, 463 *v.* Federal Power Comm'n et al. Washington Public Power Supply System, Petitioner, 462 *v.* Federal Power Comm'n et al.	On Writs of Certiorari to the United States Court of Appeals for the District of Columbia Circuit.

[June 5, 1967.]

MR. JUSTICE HARLAN, whom MR. JUSTICE STEWART joins, dissenting.

I had thought it indisputable, first, that a court may not overturn a determination made by an administrative agency upon a question committed to the agency's judgment unless the determination is "unsupported by substantial evidence," [1] and, second, that the substantiality of the evidence must be measured through, and only after, an examination of the "whole record." [2]

The Commission has determined, on the basis of 14,327 pages of testimony and exhibits, of "extensive material" [3] submitted after the close of the record by the Secretary of the Interior,[4] and of the Commission's own "general

[1] Administrative Procedure Act § 10 (e), 5 U. S. C. § 706 (2) (E), recodified in Pub. Law 89–554, 80 Stat. 378. See also *Universal Camera Corp.* v. *NLRB,* 340 U. S. 474, 488; Jaffe, Judicial Control of Administrative Action 600 *et seq.* (1965).

[2] 5 U. S. C. § 706.

[3] 31 F. P. C. 247, 275.

[4] The history of the Secretary's extraordinary series of belated and apparently indecisive interventions in these proceedings warrants a more complete chronicle than the Court has given. On March 31, 1958, Pacific Northwest applied for a license for the High Mountain

knowledge of the Columbia River System," 31 F. P. C. 247, 277, that the application of Pacific Northwest was "best adapted to a comprehensive plan," 16 U. S. C. § 803 (a), of development for this portion of the Colum-

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Sheep site, and on October 21, 1959, the Commission solicited the views of the Secretary of the Interior. On November 21, 1960, the Secretary replied substantively, and urged that the entire project be postponed, since the available power supply in the region was, in his view, then sufficient. The hearings nonetheless continued. On March 15, 1961, the Secretary wrote once more, first to indicate that he was withdrawing permission for Interior Department employees to testify at the hearings on questions of the alternative power sources and of the protection of the anadromous fish, and second to suggest that the hearings should be recessed or suspended until the end of 1964, more than three years later. There was, in these various communications, no intimation that federal development of the site was desirable or even appropriate. The hearings concluded on September 12, 1961.

On June 28, 1962, the Secretary suggested, for the first time, that federal development might be suitable; he did not, however, urge that either he or the Commission should immediately seek congressional approval of such a federal project, a precondition to its commencement. Nor did the Secretary intimate that the evidentiary record that had been compiled by the Commission might be incomplete, or request that it be reopened so that he might supplement it. Nonetheless, the Commission *sua sponte* ordered the parties to respond to the Secretary's suggestion.

On October 8, 1962, the Examiner completed his recommendations, concluding that Pacific Northwest's proposal was "best adapted" to the river's development, in part because federal development could not reasonably be immediately anticipated. The Secretary thereupon sought to intervene out of time, and to file exceptions. He did not request that the record be reopened. His motions were granted, and very extensive exceptions were filed. Oral argument of the exceptions was subsequently heard. Neither in the execptions nor, apparently, in the oral argument did the Secretary seek to reopen the record to supplement the evidence before the Commission.

The Commission's decision, rejecting the Secretary's suggestions, was announced on February 5, 1964. The Secretary sought a rehearing on March 26, 1964, and only then did he ask that the

bia River Basin, and that, as a consequence, this site should not now be reserved for later development by the United States.[5]

The Court of Appeals unanimously concluded that this evidentiary record establishes that "the Commission was amply justified in refusing to recommend federal development and in issuing a license for private construction." 358 F. 2d 840, 848. I agree. Doubtless much of the evidence was not, as it was submitted, labeled as pertinent to a determination of the Commission's responsibilities under § 7 (b), but I had not before understood that evidence marshalled in support of an agency's finding must, if it is to be credited, have been tidily categorized at the hearing according to the purposes for which it might subsequently be employed.

I can only conclude that the Court, despite its self-serving disclaimer, *ante*, p. —, has, in its haste to give force to its own findings of fact on the breeding requirements of anadromous fish[6] and on the likelihood that

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record be reopened. He offered only the most general indications of the evidence he would introduce if his motion were granted. Not surprisingly, the Commission denied the motion, and, after consideration of various "pleadings," affirmed, with certain minor modifications, its first order. 31 F. P. C. 1051. These actions for review followed. The Secretary, apparently for the first time, announced in his petition to this Court for a writ of certiorari that he was now prepared to seek immediate congressional approval for federal construction of a dam at High Mountain Sheep.

[5] Section 7 (b) of the Federal Power Act, 16 U. S. C. § 800 (b), requires the Commission to refuse any application when it concludes that the project should be undertaken by the United States.

[6] It must be noted that nothing in the terms, purposes, or legislative history of the Anadromous Fish Act of 1965, 79 Stat. 1125, suggests in any way that it was expected to provide the Secretary or this Court with any retroactive "mandate" to overturn the Commission's judgment. The only pertinent portions of the legislative history are plain and uncontradicted acknowledgments from the Federal Power Commission that the Act would not "have any

solar and nuclear power will shortly be alternative sources of supply, substituted its own preferences for the discretion given by Congress to the Federal Power Commission. In particular, it must be emphasized that the Court, alone among the Secretary of the Interior, the Commission, Pacific Northwest, the Washington Public Power Supply System, and the various other intervenors, apparently supposes that no dam at all may now be needed at High Mountain Sheep.[7] Wherever the right lies on that issue, it need only be said that Congress has entrusted its resolution to the Commission's informed discretion, and that, on the basis of an ample evidentiary record, the Commission has determined that Pacific Northwest should now be licensed to construct the project.

I would affirm the judgments in both cases substantially for the reasons given in Judge Miller's opinion below, as amplified by the considerations contained in this opinion.

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effect" on its authority. Hearings before Subcommittee on Fisheries and Wildlife Conservation of the House Committee on Merchant Marine and Fisheries on H. R. 2392, et al., 88th Cong., 2d Sess., 45; H. R. Rep. No. 1007, 89th Cong., 1st Sess., 21. Ironically, the Commission twice during the course of those hearings called attention, without any rejoinder from the Secretary, to the High Mountain Sheep project as an illustration of its continuing and earnest concern for the protection of anadromous fish. Hearings, *supra*, at 45; Report, *supra*, at 22.

[7] Contrary to his earlier position, *supra*, p. —, the Secretary, as has been noted, now apparently entertains no doubt that the project should be immediately commenced.